APPENDIX A

CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

Total vs. Dissolved not filtered

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION

CLIENT: Earthfax Engineering
7324 South 1300 East #100
Midvale, UT 84047

LAB NO: U045417

DATE SAMPLED: 10-13-89

TIME SAMPLED:

SAMPLED BY: R.B.G.

LOCATION: Genwal SP 58

COMMENTS:

PARAMETER	DETECTED
Alkalinity as $CaCO_3$, mg/l	240
Ammonia as NH_3-N, mg/l	0.36
Arsenic as As, mg/l	0.032
Barium as Ba, mg/l	<.01
Bicarbonate as HCO_3, mg/l	288
Boron as B, mg/l	0.118
Cadmium as Cd, mg/l	<.01
Calcium as Ca, mg/l	75.9
Carbonate as CO_3, mg/l	2.7
Chloride as Cl, mg/l	13.8
Chromium as Cr (Hex), mg/l	<.01
Chromium as Cr (Tot), mg/l	<.01
Acidity as $CaCO_3$, mg/l	<10
Aluminum as Al, mg/l	<.1
Molybdenum as Mo, mg/l	<.01
Sulfide as H_2S, mg/l	<.1

PARAMETER	DETECTED
Conductivity, umhos/cm	537
Copper as Cu, mg/l	<.01
Fluoride as F, mg/l	<.1
Hardness as $CaCO_3$, mg/l	293
Hydroxide as OH, mg/l	0
Iron as Fe (Diss), mg/l	<.01
Iron as Fe (Tot), mg/l	0.025
Lead as Pb, mg/l	<.01
Magnesium as Mg, mg/l	40.2
Manganese as Mn, mg/l	<.01
Mercury as Hg, mg/l	<.0002
Nickel as Ni, mg/l	<.01
Nitrate as NO_3-N, mg/l	0.292
Nitrite as NO_2-N, mg/l	0.019
Ortho Phosphate as PO_4-P, mg/l	<.01
Potassium as K, mg/l	0.9
Selenium as Se, mg/l	<.002
Silver as Ag, mg/l	<.01
Sodium as Na, mg/l	3.7
Sulfate as SO_4, mg/l	59.2
Total Dissolved Solids, mg/l	303
Turbidity, NTU	0.67
Zinc as Zn, mg/l	<.01
pH Units	8.17
TSS, mg/l	<1
Cation, meq/l	6.24
Anion, meq/l	6.34

Rex Henderson

CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION
CLIENT: Earthfax Engineering
7324 South 1300 East #100
Midvale, UT 84047
LAB NO: U045416
DATE SAMPLED: 10-13-89
TIME SAMPLED:
SAMPLED BY: R.B.G.
LOCATION: Genwal SP 1-3

COMMENTS:
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PARAMETER	DETECTED
Alkalinity as $CaCO_3$, mg/l	156
Ammonia as NH_3-N, mg/l	0.68
Arsenic as As, mg/l	<.01
Barium as Ba, mg/l	0.020
Bicarbonate as HCO_3, mg/l	190
Boron as B, mg/l	0.112
Cadmium as Cd, mg/l	<.01
Calcium as Ca, mg/l	52.4
Carbonate as CO_3, mg/l	0
Chloride as Cl, mg/l	12.4
Chromium as Cr (Hex), mg/l	<.01
Chromium as Cr (Tot), mg/l	<.01
Acidity as $CaCO_3$, mg/l	<10
Aluminum as Al, mg/l	<.1
Molybdenum as Mo, mg/l	<.01
Sulfide as H_2S, mg/l	<.1

PARAMETER	DETECTED
Conductivity, umhos/cm	306
Copper as Cu, mg/l	<.01
Fluoride as F, mg/l	<.1
Hardness as $CaCO_3$, mg/l	151
Hydroxide as OH, mg/l	0
Iron as Fe (Diss), mg/l	<.01
Iron as Fe (Tot), mg/l	0.070
Lead as Pb, mg/l	<.01
Magnesium as Mg, mg/l	10.6
Manganese as Mn, mg/l	<.01
Mercury as Hg, mg/l	<.0002
Nickel as Ni, mg/l	<.01
Nitrate as NO_3-N, mg/l	0.412
Nitrite as NO_2-N, mg/l	0.019
Ortho Phosphate as PO_4-P, mg/l	<.01
Potassium as K, mg/l	0.2
Selenium as Se, mg/l	<.002
Silver as Ag, mg/l	<.01
Sodium as Na, mg/l	3.7
Sulfate as SO_4, mg/l	9.2
Total Dissolved Solids, mg/l	163
Turbidity, NTU	1.6
Zinc as Zn, mg/l	0.025
pH Units	7.49
TSS, mg/l	<1
Cation, meq/l	3.70
Anion, meq/l	3.66

Rex Henderson

CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION
CLIENT: Earthfax Engineering
7324 South 1300 East, Suite 100
Midvale, UT 84047
LAB NO: U045972
DATE SAMPLED: 11-2-89
TIME SAMPLED:
SAMPLED BY:
LOCATION: SP1-25

COMMENTS:
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PARAMETER	DETECTED
Alkalinity as $CaCO_3$, mg/l	210
Ammonia as NH_3-N, mg/l	0.81
Arsenic as As, mg/l	<.01
Barium as Ba, mg/l	<.01
Bicarbonate as HCO_3, mg/l	256
Boron as B, mg/l	0.24
Cadmium as Cd, mg/l	<.01
Calcium as Ca, mg/l	54.7
Carbonate as CO_3, mg/l	0
Chloride as Cl, mg/l	10.1
Chromium as Cr (Hex), mg/l	<.01
Chromium as Cr (Tot), mg/l	<.01
Aluminum as Al, mg/l	<.1
Molybdenum as Mo, mg/l	<.01
Sulfide as H_2S, mg/l	<.1
TSS, mg/l	3.0

PARAMETER	DETECTED
Conductivity, umhos/cm	375
Copper as Cu, mg/l	0.032
Fluoride as F, mg/l	<.1
Hardness as $CaCO_3$, mg/l	246
Hydroxide as OH, mg/l	0
Iron as Fe (Diss), mg/l	<.01
Iron as Fe (Tot), mg/l	<.01
Lead as Pb, mg/l	<.01
Magnesium as Mg, mg/l	16.9
Manganese as Mn, mg/l	<.01
Mercury as Hg, mg/l	<.0002
Nickel as Ni, mg/l	<.01
Nitrate as NO_3-N, mg/l	0.67
Nitrite as NO_2-N, mg/l	<.005
Phosphate as PO_4-P, mg/l	<.01
Potassium as K, mg/l	0.3
Selenium as Se, mg/l	<.002
Silica as SiO_2 (Diss), mg/l	12.4
Silver as Ag, mg/l	<.01
Sodium as Na, mg/l	6.8
Sulfate as SO_4, mg/l	9.8
Total Dissolved Solids, mg/l	247
Turbidity, NTU	0.9
Zinc as Zn, mg/l	<.01
pH Units	7.90
Cation, meq/l	4.48
Anion, meq/l	4.69

Rex Henderson

CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION
CLIENT: Earthfax Engineering
7324 South 1300 East, Suite 100
Midvale, UT 84047
LAB NO: U045974
DATE SAMPLED: 11-2-89
TIME SAMPLED:
SAMPLED BY:
LOCATION: SP2-9

COMMENTS:
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PARAMETER	DETECTED
Alkalinity as $CaCO_3$, mg/l	167
Ammonia as NH_3-N, mg/l	0.36
Arsenic as As, mg/l	<.01
Barium as Ba, mg/l	<.01
Bicarbonate as HCO_3, mg/l	204
Boron as B, mg/l	0.23
Cadmium as Cd, mg/l	<.01
Calcium as Ca, mg/l	43.1
Carbonate as CO_3, mg/l	0
Chloride as Cl, mg/l	11.1
Chromium as Cr (Hex), mg/l	<.01
Chromium as Cr (Tot), mg/l	<.01
Aluminum as Al, mg/l	<.1
Molybdenum as Mo, mg/l	<.01
Sulfide as H_2S, mg/l	<.1
TSS, mg/l	5.0

PARAMETER	DETECTED
Conductivity, umhos/cm	310
Copper as Cu, mg/l	0.032
Fluoride as F, mg/l	<.1
Hardness as $CaCO_3$, mg/l	208
Hydroxide as OH, mg/l	0
Iron as Fe (Diss), mg/l	<.01
Iron as Fe (Tot), mg/l	0.020
Lead as Pb, mg/l	<.01
Magnesium as Mg, mg/l	16.6
Manganese as Mn, mg/l	<.01
Mercury as Hg, mg/l	<.0002
Nickel as Ni, mg/l	<.01
Nitrate as NO_3-N, mg/l	1.86
Nitrite as NO_2-N, mg/l	<.005
Phosphate as PO_4-P, mg/l	<.01
Potassium as K, mg/l	0.6
Selenium as Se, mg/l	<.002
Silica as SiO_2 (Diss), mg/l	13.8
Silver as Ag, mg/l	<.01
Sodium as Na, mg/l	7.3
Sulfate as SO_4, mg/l	7.4
Total Dissolved Solids, mg/l	200
Turbidity, NTU	1.2
Zinc as Zn, mg/l	0.022
pH Units	7.69
Cation, meq/l	3.87
Anion, meq/l	3.84

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CHEMTECH

CHEMICAL AND BACTERIOLOGICAL ANALYSES

CERTIFICATE OF ANALYSIS

SAMPLE IDENTIFICATION
CLIENT: Earthfax Engineering
7324 South 1300 East, Suite 100
Midvale, UT 84047
LAB NO: U045973
DATE SAMPLED: 11-2-89
TIME SAMPLED:
SAMPLED BY:
LOCATION: SP2-33a

COMMENTS:
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PARAMETER	DETECTED
Alkalinity as $CaCO_3$, mg/l	292
Ammonia as NH_3-N, mg/l	0.50
Arsenic as As, mg/l	<.01
Barium as Ba, mg/l	<.01
Bicarbonate as HCO_3, mg/l	356
Boron as B, mg/l	0.26
Cadmium as Cd, mg/l	<.01
Calcium as Ca, mg/l	67.1
Carbonate as CO_3, mg/l	0
Chloride as Cl, mg/l	10.1
Chromium as Cr (Hex), mg/l	<.01
Chromium as Cr (Tot), mg/l	<.01
Aluminum as Al, mg/l	<.1
Molybdenum as Mo, mg/l	<.01
Sulfide as H_2S, mg/l	<.1
TSS, mg/l	70

PARAMETER	DETECTED
Conductivity, umhos/cm	459
Copper as Cu, mg/l	0.045
Fluoride as F, mg/l	<.1
Hardness as $CaCO_3$, mg/l	292
Hydroxide as OH, mg/l	0
Iron as Fe (Diss), mg/l	0.10
Iron as Fe (Tot), mg/l	0.59
Lead as Pb, mg/l	<.01
Magnesium as Mg, mg/l	37.4
Manganese as Mn, mg/l	<.01
Mercury as Hg, mg/l	<.0002
Nickel as Ni, mg/l	<.01
Nitrate as NO_3-N, mg/l	0.71
Nitrite as NO_2-N, mg/l	0.0051
Phosphate as PO_4-P, mg/l	<.01
Potassium as K, mg/l	0.6
Selenium as Se, mg/l	<.002
Silica as SiO_2 (Diss), mg/l	14.4
Silver as Ag, mg/l	<.01
Sodium as Na, mg/l	8.2
Sulfate as SO_4, mg/l	34.6
Total Dissolved Solids, mg/l	276
Turbidity, NTU	28
Zinc as Zn, mg/l	0.13
pH Units	8.05
Cation, meq/l	6.84
Anion, meq/l	6.85

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